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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/803,623

Applicant(s)

SRIVASTAVA ET AL.

Examiner

Phillip H. Nguyen

Art Unit

2191

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. This action is in response to the amendment filed 08/01/2008.
2. Claims 1-35 remain pending in this application with claims 1, 18 and 32-35 amended.

Response to Amendment

3. Prior rejection to claims 32 and 34 under 35 USC 101 is hereby withdrawn in view of applicants' amendment to clarify the deficiency.

Response to Arguments

4. Applicant's arguments filed 08/01/2008 have been fully considered but they are not deemed persuasive.

Applicants assert on page 11 of the amendment that the private symbolic link of Burgoon is used to view and access history managed computer files. It is not used to perform any rolling upgrades in a computer system as recited in claims 18, 34 and 35.

Examiner respectfully disagrees with the allegation as argued by the applicants.

Claim analysis:

"wherein the private symbolic link is used to perform the rolling upgrade in the computing system."

It is unclear whether rolling update is performed to the members (i.e. first member and/or second member) or the shared file or the client or even all of them. Since, the claimed limitation is not limit to perform the rolling upgrade to any particular entity in the computing system, upgrading to any entity (i.e. members, shared file or client) in the computing system will be interpreted as the same.

Burgoon teaches *"For updates to an existing installation, examine the new files in the /usr/history/newconfig directory and incorporate any changes"* (see at least col. 6:59-60). Burgoon goes on to further teach *"ZHMS allows a user to create symbolic links to files in a shared file system. A single link is created for each file. A local zym link to the shared file system may be updated via the zupdate command. Rather than selectively update individual files, a user simply zupdate's (i.e. zym link) whole trees of files...."* (see at least col. 43:33-39).

Thus, Burgoon clearly teaches updating the shared file system using the zym links.

Applicants further assert on page 12 of the amendment Earl fails to teach bringing down a first member, wherein a second member is not brought down while the first member is down, wherein the first member and the second member are located on a same node of the computing system as recited in claims 1, 32 and 33.

Examiner respectfully disagrees with the allegation as argued by the applicants. Earl teaches "*performing the rolling upgrade process **by sequentially (i.e. one after another) loading and rebooting each of the plurality of nodes** with the new software release; and ensuring that the plurality of fault-tolerant **services remains available throughout the rolling upgrade process***" (see at least col. 2:39-43). In other words, each member (i.e. node) of the computer system is brought down one after another for loading and rebooting with new software release) to ensure the services remain available throughout the rolling upgrade process.

Thus, Earl clearly teaches the rolling upgrade process as claimed by the applicants' invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 18-31, 34, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Burgoon (United States Patent No.: 5,706,510).

As per claims 18, 34, and 35:

Burgoon teaches:

creating a first version of a shared file (see at least FIGS. 2-3 **"construct a shared file system comprising a plurality of file versions"**);

creating a second version of a shared file (see at least FIGS. 2-3 **"construct a shared file system comprising a plurality of file versions"**);

creating a first private symbolic link to reference the first version of the shared file, the first private symbolic link comprising link criteria that designates that members in a first group are authorized to use the first private symbolic link, wherein the first private symbolic link is used to perform the rolling upgrade in the computing system (see at least FIGS. 2-4 **"create a plurality of symbolic links under the directory hierarchies of the plurality of user file systems"** – symbolic links are created for member user only); and

creating a second private symbolic link to reference the second version of the shared file, the second private symbolic link only applying to members of a second group associated with the second private symbolic link, wherein the second private symbolic link is used to perform the rolling upgrade in the computing system (see at least FIGS. 2-4 **"create a plurality of symbolic links under the directory hierarchies of the plurality of user file systems"**).

As per claim 19:

Burgoon further teaches:

the first and second versions of the shared file are web pages (see at least **FIGS. 3**).

As per claim 20:

Burgoon further teaches:

members of a first group are entities operating a first browser application and members of the second group are entities operating a second browser application (the user file systems are logically separated. Therefore, they operate different browser application).

As per claim 21:

Burgoon further teaches:

the first symbolic link has a link criteria that defines the membership of the members of the first group associated with the first symbolic link (see at least FIG. 4 "USER1/PROJECT/...USER_A3").

As per claim 22:

Burgoon further teaches:

the link criteria identifies a member to create a member private symbolic link (see at least col. 23:18-19 "...local_dir is a privately owned directory 344 in a user's file system").

As per claim 23:

Burgoon further teaches:

the link criteria identifies an application version number (see at least FIG. 4 ".../USER_A3 – FILE_A3).

As per claim 24:

Burgoon further teaches:

the first group comprises multiple entities as members (see at least FIG. 1 "USER1, USER2...).

As per claim 25:

Burgoon further teaches:

the first symbolic link provides a reference for a specific pathname (see at least FIG. 4).

As per claim 26:

Burgoon further teaches:

the first symbolic link provides a reference for a directory (see at last FIG. 4).

As per claim 27:

Burgoon further teaches:

the first private symbolic references a first private copy of the first version of the shared file and the second private symbolic link references a second

private copy of the second version of the shared file (see at least col. 5:10-11
**"the correspondence of symbolic links 436-442 and file versions 302-308
being based on a map entry 352").**

As per claim 28:

Burgoon further teaches:

*wherein both the members of the first group and members of the group
simultaneously operate different versions of the one or more shared files* (see at
least **FIG. 4 – "FILE_A2, FILE_B2..."**).

As per claim 29:

Burgoon further teaches:

one or more copies exist for each version of the one or more shared files
(see at least **FIG. 4 – "FILE_A2, FILE_B2..."**).

As per claim 30:

Burgoon further teaches:

*creating a direct object reference for the members of the first group to the
first version of the shared file* (see at least FIG. 2 **"create a plurality of symbolic
links under the directory hierarchies of the plurality of user file systems"**).

As per claim 31:

Burgoon further teaches:

the direct object reference is automatically created by removing the first private symbolic link (see at least col. 27:38-39 "The symbolic link 436 is then replaced with the requested physical file").

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-17, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgoon (United States Patent No.: 5,706,510), in view of Earl et al. (United States Patent No. US 6,966,058).

As per claims 1, 32, and 33:

Earl teaches:

creating a second version of the shared file (see at least col. 5:34-35 "a new software release 210 may be received by one of the SMS/boot server 116...");

bringing down a first member, wherein a second member is not brought down while the first member is down, wherein the first member and the second

member are located on a same node of the computing system (see at least col.

2:39-41 "**performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release**"); and

bringing up the first member so that the first member references the second version of the shared file (see at least col. 2:39-41 "**performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release**").

Earl does not explicitly teach:

creating a private symbolic link for the first member to reference the second version of the shared file, the private symbolic link comprising link criteria that designates that the first member of the group is authorized to use the private symbolic link, wherein the private symbolic link is used to perform the rolling upgrade in the computing system.

However, Burgoon teaches an analogous art:

creating a private symbolic link for the first member to reference the second version of the shared file, the private symbolic link comprising link criteria that designates that the first member of the group is authorized to use the private symbolic link, wherein the private symbolic link is used to perform the rolling upgrade in the computing system (see at last FIGS. 2-3 "**create a plurality of symbolic links under the directory hierarchies of the plurality of user files systems**").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Earl's approach to use symbolic links as taught by Burgoon for rolling upgrade. One would have been motivated to use the symbolic links for rolling upgrade because it provides a user with more free disk space.

As per claim 2:

Earl in combination with Burgoon further teaches:

bringing down the second member, wherein the first member is not brought down while the second member is down (see Earl at least col. 2:39-41

"performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release");

creating a second private symbolic link for the second member to reference the second version of the shared file (see Burgoon at least FIGS. 2-3

"create a plurality of symbolic links under the directory hierarchies of the plurality of user files systems"); and

bringing up the second member (see Earl at least col. 2:39-41

"performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release").

As per claim 3:

Early in combination with Burgoon teaches all the limitations of base claim, Burgoon further teaches:

*the private symbolic link and the second symbolic link are the same, and wherein both the first and second members are members of the group associated with the private symbolic link (see at least **FIGS. 1-4**).*

As per claim 4:

Earl in combination with Burgoon teaches all the limitations of base claim, Earl further teaches:

removing the first version of the shared file (see at last col.2:39
“performing the rolling upgrade process” – will replace the first version (i.e. old version) with the second version (i.e. new version, upgraded version, etc).

As per claim 5:

Earl in combination with Burgoon teaches all the limitations of base claim, Burgoon further teaches:

*the private symbolic link for the first member references a first private copy of the second version of the shared file and the second private symbolic link for the second member references a second private copy of the second version of the shared file (see at least **FIGS. 1-4**).*

As per claim 6:

Earl in combination with Burgoon teaches all the limitations of based claim, Burgoon further teaches:

the private symbolic link for the first member and the second private symbolic link for the second member references the same copy of the second version of the shared file (see at least FIG. 4).

As per claim 7:

Earl in combination with Burgoon teaches all the limitations of base claim, and further teaches:

bringing down the second member, wherein the first member is not brought down while the second member is down (see Earl at least col. 2:39-41 “performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release”);

creating a second private symbolic link for the second member to reference a third version of the shared file (see Burgoon at least FIGS. 2-3 “create a plurality of symbolic links under the directory hierarchies of the plurality of user files systems”); and

bringing up the second member so that the second member references the third version of the shared file, wherein both the first member and the second member simultaneously operate different versions in the computing system (see Earl at least col. 2:39-41 “performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release”).

As per claim 8:

Earl in combination with Burgoon teaches all the limitation of base claim,
Burgoon further teaches:

*one or more copies exist for each version of the computer application (see
at least FIG. 4 "FILE_A3, FILE_B2...").*

As per claim 9:

Earl in combination with Burgoon teaches all the limitations of base claim,
Burgoon further teaches:

*the private symbolic link comprises a property that identifies a link criteria
(see at least FIG. 4 "/USER1/PROJECT/...USER_A3...").*

As per claim 10:

Earl in combination with Burgoon teaches all the limitations of base claim,
Burgoon further teaches:

*the link criteria comprises a member identifier (see at least FIG. 4
"/USER1/...").*

As per claim 11:

Earl in combination with Burgoon teaches all the limitations of base claim,
Burgoon further teaches:

*creating a direct object reference for the first member to the second version of the shared file (see at least **FIGS. 2-4**).*

As per claim 12:

Earl in combination with Burgoon teaches all the limitation of base claim,
Burgoon further teaches:

*the direct object reference is automatically created by removing the private symbolic link (see at least col. 27:38-39 "**The symbolic link 436 is then replaced with the requested physical file**").*

As per claim 13:

Earl in combination with Burgoon teaches all the limitations of base claim, and
further teaches:

creating a third version of the shared file (see at least FIGS. 2-4
"construct a shared file system comprising a plurality of file versions");
bringing down the second member, wherein the first member is not brought down while the second member is down (see Earl at least col. 2:39-41
"performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release");
creating a second private symbolic link for the second member to reference the third version of the shared file (see at least FIGS. 2-4 "create a

plurality of symbolic links under the directory hierarchies of the plurality of user file systems"); and

bringing up the second member (see Earl at least col. 2:39-41

"performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release").

As per claim 14:

Earl in combination with Burgoon teaches all the limitations of base claim, Earl further teaches:

copying the shared file (see at least col. 6:15-16 **"copying the software from the first machine on which it is installed to the others"); and**

patching the shared file to create the second version (see at least col. 6:19-20 **"new software releases, which may include software patches..."**).

As per claim 15:

Earl in combination with Burgoon teaches all the limitations of base claim, Burgoon further teaches:

the private symbolic link is private to a member (see at least col. 23:18-19 **"...local_dir is a privately owned directory 344 in a user's file system")**).

As per claim 16:

Earl in combination with Burgoon teaches all the limitations of based claim, Earl further teaches:

*the act of bringing down the first member comprises: shutting down a computer application at a node associated with the first member (see at least col. 2:39-41 "**performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release**").*

As per claim 17:

Earl in combination with Burgoon teaches all the limitation of base claim, Earl further teaches:

*the first member still executes the first version of the computer application concurrently with the second member executing the new version of the computer application (see at least col. 2:39-41 "**performing the rolling upgrade process by sequentially loading and rebooting each of the plurality of nodes with the new software release**").*

Corresponding Information

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN
10/30/08
/Wei Y Zhen/
Supervisory Patent Examiner, Art Unit 2191